Chapman's Lectures

Vol. 12th.

The Absorbent System.

1st. Dropsy.

L. / Conformably to the plan of classification which I have adopted, I now go on to the consideration of the diseases of the absorbent system. The 1st. of these is dropsy. This is defined to be, a preternatural collection of serum, or watery fluid in the cellular membrane, or cavities of the body, and receiving different appellations, according to the part in which the fluid may be lodged. As, however, the principles in one case are pretty nearly applicable to the treatment of all, I shall call your attention only to the 3 ~~las~~ leading, and most important forms of Dropsy. These are Anasarca, Ascites, and Hydrothorax, or, as it has sometimes been called Hydrops Pectoris. Much controversy has always prevailed relative to the pathology of Dropsy. The only fact, indeed, generally admitted by the writers on this complaint, is that the disease arises from the destruction of that exact ballance

existing, in perfect health, between the powers of the exhalent and absorbent vessels: Every one at all instructed in Physiology knows, that, when the system is in a perfectly undestirbed condition, a watery fluid is constantly poured out into every cavity and interstice of the body, and, without being permitted to accumulate to any extent, is taken up by the lymphatics, and disposed of in a manner which it is not now necessary for me to explain to you. Hence it appears, that Dropsical collections must be occasioned, either by an increase of effusion, or by a decrease in the powers of absorption. The question here recurs, which is the most common cause of this disease. Consulting the lights of my own personal experience, and aided by those general reasonings which never fail to influence more or less all my opinions, I should say that dropsy of every description, in a large majority of cases, is the result of preternatural effusion. My time is at present too valuable to allow me to pause, for the sake of illustrating & enforcing this doctrine of the disease before us. Nor, perhaps, is it requisite, as the practice, in this case, is not in the slightest degree affected, whichever opinion may be adopted. But,

without impropriety, it might here be inquired of me by you, why I should locate Dropsy as a disease of the lymphatics, entertaining such notions as I have expressed, of its pathology. To this I can only reply, that in every attempt at the classification of diseases, we have to encounter immense difficulties; and that, after mature reflection, I thought proper to place dropsy as I have done, because the active & efficient remedies employed for its cure, are addressed to the system of lymphatic vessels. Differing as physicians do relative to the theory of this complaint, when they come to the treatment, we shall find them all to unite in the propriety of arousing the absorbents to new & invigorated efforts. In our speculations relative to pathology, it is of the utmost importance to endeavour, with much precaution, to ascertain the nature & degree of action with which the different states of disease may be combined. On this depends our failure or success in the management of all these cases. The European writers, with hardly one exception, most strenuously maintain, that dropsical complaints originate in debility, and are uniformly associated, in all stages, with what they denominate a Cachectic

* The doctrine of Stahll may be explained in a very few words. He supposed that when the blood-vessels were too full, nature often relieved herself by hemorrhage from different parts; but that sometimes the principle which presides over the system, (his anima medica,) judging that an effusion of † watery fluid would answer the purpose better than hemorrhage, relieved the system from the load of blood, by producing a secretion of serum into the cavities of the body, or into the cellular membrane. Boletius lays it down that the disease is inflammatory, and to be cured by the antiphlogistic remedies. Riberius, a French writer, carried the same notion to so great an extent, that he was ridiculed by Le Sage under the character of San Grado; a picture which that author drew, for the purpose of bringing venesection into discredit. — (Notes of last year)

condition of the system. As deduced from this opinion, their practice is made up of stimulating and tonic remedies, and, on the whole, is exceedingly mischievous & fatal. But we, on the contrary, acting on different views of the nature of dropsy, push the lancet too far; and here, as in most other instances, truth is to be found in the medium between the two extremes of opinion. Dropsy unquestionably occurs in opposite conditions of the system, and exacts for its cure very different modes of practice. Every physician must have met with cases of this disease, appearing as a febrile affection, accompanied with great fullness and activity of the pulse. Nor is this any new discovery as regards the disease under consideration. Exactly such a pathological view of dropsy was advanced by the celebrated Stahl* in his chapter on hemorrhages; and was subsequently adopted & inculcated by more than one of the teachers in the Universities of Germany. It will also be found, upon examination, that precisely the same opinion was long since entertained in France, and was laid down & enforced in the writings of Botelles, and other French authors. Nevertheless, as I have before remarked, dropsy is also frequently a disease

of very feeble action, the effect of an exhausted system, or of a highly diseased state of some important viscus, as the liver, spleen, stomach, or pancreas. After all, however, it must be confessed, that there is great obscurity on the subject of dropsy; and that there is the utmost uncertainty with regard to the operation of our remedies in this complaint. No doubt this uncertainty of our medicines may, in part, be imputed to the habit of confounding opposite morbid states of the body, and of including under precisely the same name, cases of an opposite condition & character. Aware of the great distinction existing between the different states of Dropsy, the Humoral Pathologists endeavoured to arrange them according to the condition of the system, into Leuco-phlegmatic, Scorbutic, and Cachectic. Each of these diatheses, or states of the system is found in common dropsical effusions, and probably ~~lay the~~ may lay the foundation for the complaint. But, though not without merit, the classification just mentioned is too much encumbered with false theory, and other perplexities, to serve the purposes of actual practice. Not long ago, a new view of the subject was presented to the public. The writer, a practi=

pioneer of enlarged observation, maintains that the qualities of the urine, afford a test of the several kinds of dropsy, or a criterion of the condition of the system with which they are associated. The name of the writer alluded to is Blackall. Thus, in dropsy of high excitement, the urine is always coagulable, like the serum of the blood, by heat or nitric acid. 2nd. He says that in dropsy associated with unsoundness of the viscera, as scirrus or congestion of the liver, spleen &c. - the urine is scanty, high coloured, loaded with a red lateritious sediment, and depositing nothing from the application of heat or nitric acid. 3rd. In dropsy of feeble action the urine is always scanty, pale, not coagulable, and depositing no sediment whatever. These are the principle distinctions, though, like all medical generalization, they are subject to some exceptions, and should be received with cautious limitations. Enough, however, has been said by the writer, to arouse attention to the subject, and to induce us, by further inquiry to refute or confirm his observations. Nothing is more curious than that dropsy of high action is distinguished by urine, possessing the property of coagulability. Yet I am not sensible, that any great practical advantage can be

derived from this discovery. To Europeans it may, perhaps, be of some service; but in this country, practitioners would be very unwilling to exchange the pulse for the urinal, as a guide to determine the state of the body, in dropsy or other diseases. —

Of the causes of Dropsy, I shall not say much. They are fully enumerated in the practical authors, which are in the hands of all of you. — Dropsy is most commonly the effect of some preceding disease, by which the animal economy has been deranged, more particularly of Intermittent fever, Jaundice, Diarrhoea, Dysentery, Gout, Rheumatism, Asthma, Pulmonary Consumption, Pneumonia, Scarlet fever, Erysipelas, and all the other exanthematous affections. — It is also induced by obstruction, and other disease conditions of the abdominal & thoracick viscera. Now & then it comes on from mere debility and relaxation, without any derangement in the system from previous disease, there being only what is called a dropsical diathesis or predisposition. Most generally, in dropsies of this nature, I suspect the absorbents are in fault; and that the complaint proceeds ~~entirely~~ directly from that cause. —

Anasarca.

My intention is first to treat of anasarca, or dropsy of the cellular texture; and what I shall say on this will, for the most part, apply ~~to ascites~~ equally well to ascites. – The dropsical effusions of the chest are somewhat different in their nature, are managed on different principles, and demand in some measure different remedies. Anasarca first shows itself most commonly by a swelling of the feet and ankles, which is more visible towards night or in the close of the day, and disperses, for a time, before ~~the~~ morning. The tumefaction is soft and inelastic, and when pressed on by the fingers is marked with pits or indentations, which remain for some time after the fingers have been removed, the skin becoming much more pallid than natural. By degrees the swelling extends upwards, and occupies ~~the~~ thighs & trunk of the body, and at last even the face and eye-lids appear full and bloated. As the disease progresses, the internal parts become affected, and difficult and uneasy respiration occurs, owing to the effusion of water into

the cellular structure of the lungs. Sometimes also the watery fluid is effused into the abdomen, and then the case constitutes what is called Universal dropsy. In this stage, the bowels are always constipated, the urine is scanty & high coloured, the surface of the body is hot and dry; the pulse is feeble though commonly small and chordee, and, in every case of dropsy there is more or less thirst. After this the disease progresses rapidly. Torpor & heaviness, with a slow and indistinct fever occur. The distention is so considerable as to force the water through the pores of the skin in some places; and in others, where the cuticle is more dense & strong, vesications or blisters are formed, which ultimately terminate in gangrene & mortification; and the patient at length sinks from debility & exhaustion.

Like all the forms of Dropsy, anasarca may ~~occur~~ be attended either ~~in~~ with an excited or debilitated condition of the System. But whatever may be the nature of the case, there are two indications of treatment which always present themselves; 1st. to evacuate the serous fluid, which has accumulated; 2nd. to change

the condition of the system producing their accumulations. — I shall first notice that form of anasarca, in which there is much excitement, accompanied with febrile symptoms. It is fortunate in this case, that the remedies employed to reduce the tone and vigour of the circulation, at the same time have the effect of increasing absorption. The action of the arteries and lymphatics is in an inverse ratio; and no fact is better established, than that to increase the energy of the latter, the power of the former must be abated or depressed. Most of the practitioners of this country proceed on the principle just mentioned; and hence all those means are resorted to, which are calculated to deplete, and to reduce the vigour of the system. Notwithstanding the European prejudices against it, ~~the~~ venesection, under such circumstances, is of indispensable utility. But, as in all other cases, its use should here also be tempered by sound discrimination, and a due regard to the nature of the case. The pulse in the early stage of ~~an~~ dropsy connected with excitement, is hard, tense, and chorded; and the blood when withdrawn, is uniformly found to become sizy, and to exhibit other indications

of a high grade of inflammatory action. To the symptoms already mentioned may be added a hot & dry skin, parched tongue and fauces, unquenchable thirst, and other symptoms ~~indicating~~ which are incident to febrile complaints. As long as such a state of things continues, we should repeat the bleedings, and sometimes detract blood in no inconsiderable quantity. It is common in this city, in the management of inflammatory dropsy, to bleed two or three times a week, till ~~we have exhausted~~ the operation has been repeated 10, 12, or 15 times. I am perfectly persuaded, that in some of the cases more than two or three hundred ounces have been lost in effecting the cure. But to such an extent the lancet should not be indiscriminately employed. ~~The~~ The treatment just mentioned is applicable only to cases of Dropsy which exhibit unequivocal marks of great excitement of the system. There are many cases where moderate venesection only is demanded; and many others where this remedy cannot be employed at all, without manifest injury to the patient. In the course of a few weeks, I have read with great interest, an ac-

of a case of Dropsy in General Young, (with whom I am well acquainted,) by a practitioner of this state, (whose name I have forgotten,) in the treatment of which case two or three hundred ounces of blood were drawn. The author of this cure, takes to himself great credit for having originated the idea that dropsy is a febrile disease. Like all enthusiasts he has gone too far. He enjoins it on physicians to bleed in every case to a great extent. Again let me repeat, that if you employ this practice in every case, your course will be marked by as great fatality, as if bleeding were altogether neglected. As regards his theory, it will be found, as already stated, in the writings of Stahl on hemorrhage, ~~and~~ in other German authors, in certain French writers, and was taught at least 30 years ago by Dr. Rush in this country.

Decidedly advantageous as the lancet is in dropsy, we are not exclusively to rely on it. As auxiliary to it, we may resort to any or all of the indirectly evacuating remedies. At one time it was a fashionable

practice to prescribe emetics in this stage, under the idea of promoting absorption. That they have such an effect, to a great extent, cannot be denied; and it would not be difficult to show, by having recourse to authorities, that the administration of emetics has been followed by signal advantage. But they have now lost grown in the estimation of practitioners, so much so that they are rarely prescribed, and perhaps never unless to relieve a loaded & oppressed stomach, or in certain cases hereafter to be mentioned. Emetics have given way to other classes of medicines, and especially to purges. These, indeed, are called for, not less from their power of quickening & promoting the action of the lymphatics, than with the view of reducing febrile excitement, & overcoming obstinate constipation of the bowels, so constant an attendant on dropsical affections. To evacuate the bowels is not a modern practice in this complaint. It was fully adopted by Sydenham, who was followed by all his disciples. By this great reformer of practical medicine, purges were directed every day, unless prohibited by the prostration of the patient. The

practice is perfectly sound, and highly beneficial. But in the selection of cathartics, some discrimination is demanded. By all the ancient writers, and even by the moderns till very lately, the drastic or hydragogue purges were preferred. Articles of this nature, are, however, very mischievous in the inflammatory form and excite ~~cases~~ of Dropsy. When employed at all, they should be applied only to very old & protracted cases, where the stomach, and particularly the bowels are in a torpid condition, the habit of the patient phlegmatic, and no fever nor visceral obstruction exists. It is much better under other circumstances of the disease, to resort to the saline purges, and particularly to the Tartrites. Consecrated, as it were, by the common consent of practitioners, to that form of Dropsy which now claims our attention, is a combination of Cream of Tartar & Jalap. It should always be used in the early stage of Inflammatory dropsy. The dose is from 1 to 2 drachms of the former to 10 or 15 grains of the latter. This should

be repeated so often as to keep up a discharge from the bowels almost unremitting; and, to effect this, it will, perhaps, be necessary to give the dose every day: sometimes every other day will answer. ~~Exhibited~~ Thus exhibited, the effects of the article are exceedingly prompt, effectual, and altogether astonishing. I have often seen a great degree of intumescence in the extremities and abdomen, entirely removed, in the course of 8 or 10 days, by this purge alone. It is, therefore, with the strongest emphasis, and highest tone of confidence that I press it on your attention. Nay, I can truly declare, have I had more reason to be delighted ~~by~~ with any one remedy in any disease, than with purging active and constant by ~~an~~ this preparation of Cream of Tartar & Jalap, in inflammatory Dropsy. ~~Administration~~ It is equally applicable to anasarca & ascites; and acts so as to prevent a relapse, and to confirm convalescence. —

L.

In my last lecture I spoke of the Pathology of Dropsy, and entered on the treatment. I have already mentioned, that in cases attended with excitement and a febrile condition of the system, the only hope of cure was afforded by occasional recurrence to the lancet, and steadily pursuing a course of evacuations from the bowels. Notwithstanding, however, the general efficacy of this plan of managing the disease, it will not uniformly succeed, and we shall be obliged to resort to means acting more directly on the lymphatics, or, in other words, to diuretic remedies. But, whatever remedies are employed, you must bear in mind, that we are still treating of Inflammatory dropsy.

Of all the diuretics, the one best adapted to this condition of the disease, is unquestionably Cream of Tartar. It has long been distinguished for its valuable properties, under such circumstances; though its reputation has never been so well established as at present. Every modern practitioner, without one solitary exception, will agree in the above statement; and the clinical experiments of Dr. Holme, & Dr Farrier, made with the view of ascertaining the comparative efficacy

ficacy of Digitalis + Cream of Tartar, are decidedly in favour of the superiority of the latter article. My intention is not to institute a comparison between the two medicines, nor do I see how it can well be done. Confessedly, they possess very different qualities, and are not applicable to the same description of cases. Certain it is, that Cream of Tartar judiciously administered, often disperses dropsical swellings, more speedily than any other of the same class with which I am conversant. But when it does this, we may observe that it is by a combined operation on the kidneys and bowels, producing an increased discharge ~~from~~ of urine, and copious alvine evacuations. This fact I am more anxious to impress on your memory, because there are two modes of exhibiting the medicine, not a little different in their effects. Dissolved in large quantities of water, it acts merely as a diuretic; whereas the same dose given in the form of an electuary, or with small ~~quan~~ portions of water, either alone, or in conjunction with some other cathartic, operates as an hydragogue, evacuating water as well as fecal matter from the bowels. The latter mode is decidedly preferable, when we desire to remove large accumulations of fluid. —

Much has been said at different times of the hydropic powers of the vegetable and mineral alkalis; and I see no reason to dispute what has been reported of the utility of these medicines. But neither of them has been extensively employed by me. Of the two alkalis, potash has always had the preference. By the older practitioners, and indeed the practice has continued to the present times, the ashes of a variety of vegetables were much used in Dropsy. Being effectual, however, only from the alkali which they contain, they have been generally supplanted, in regular practice, by the sub-carbonate of Pot-
3-ash. The cases of Dropsy in which this article proves most beneficial, are such as are connected with great depravation, or vitiation of the powers of Digestion. This condition of the disease is ~~most~~ most commonly met with among Drunkards; and not unfrequently, under such circumstances, acid is evolved in great quantities in the stomach, producing, or associated with various distressing affections. Cullen, who goes far in the praise of potash, is of opinion that it owes all its diuretic properties in this case, to its combination with the acid in the stomach, whereby a neutral Salt is formed. I doubt exceedingly the accuracy of this

hypothesis. Be it as it may, this much is certain, that by combining the alkali with the bitter tonics, as quassia, Gentian, & Columba, we very much increase its powers in these cases. Exhibited in this state of combination, its diuretic property is said to be increased, while at the same time, it removes the gastric disorder, and invigorates the system generally. No practice is better supported by authority than this. It originates with Sir John Pringle, and its utility has been subsequently attested by the concurrent testimony of the most respectable authors. Yet it must be confessed, that the alkali is inferior to most of its combinations with the acids, forming what are called neutral salts. Of the Cream of Tartar I have already spoken. But there is another neutral salt, which was supposed to possess such extraordinary diuretic powers, that it was denominated Sal Diureticus. I am not, however, prepared to say much in favour of the medicine. In the few trials I have made of it, my expectations have been disappointed. Like most of the neutral salts, it unites the properties of a mild aperient, with those of a diuretic; though from what I have seen, I should suppose that it is infe-

itely more apt to act on the bowels, than on the kidneys. The dose, however, is 30 grains dissolved in water, and repeated 3 or 4 times in the 24 hours.

Eminently adapted to diseases of high or inflammatory action, is the Nitrate of Potash, or the common Nitre. As a diuretic it is, perhaps, inferior to many others, though in this respect it is not entirely destitute of efficacy. But the greatest utility is derived from its powerful influence over the arterial system, and in subduing the febrile and inflammatory symptoms. An objection to its employment is, that when it is given in such doses as to make a strong impression on the disease, it causes so much nausea or other distress of the stomach, as to render its continuance impracticable. Its efficacy is greatly increased, by combining it with tartar emetic, and small portions of calomel, constituting what is called the nitrous or antimonial powder.

As a substitute for the nitrate of potash, and far less offensive to the stomach, I would advise you to employ the dulcified spirits of nitre. True it is, that as has often been alleged, that this is very inferior in strength, and better adapted to children than to persons in advanced life. But when freely given

I have known it to act on the kidneys powerfully, and evacuate large quantities of water. Most practitioners commit a great mistake ~~when they~~ by prescribing the medicine in doses too minute. As a diuretic, not less than from 2 to 4 drachms should be given at once, & this repeated 3 or 4 times during the day. Diminutive doses of this article, are not of the slightest service in any case; and whenever they produce any sensible effect, they operate on the surface of the body, occasioning a slight diaphoresis. No fact is better established than this, that small doses of sweet spirits of nitre prove of no advantage whatever in this disease, and when any effect is produced, it is always by the diaphoretic not the diuretic operation.

Of the mild diuretics employed in dropsy, the last which I shall notice is the common Parsley. This, though a homely remedy, often proves important in the management of the complaint of which we are treating. Within my own knowledge, it has cured a case of ascites, where tapping had twice been resorted to. It has also proved beneficial in other instances. Every part of the Parsley is

diuretic; but the root in strong tea or ~~decoc~~ infusion is what I usually prescribe. By becoming a domestic remedy, parsley has been overlooked in regular practice. I do not know a more certain or powerful remedy in certain cases of dropsy. It is also recommended by the fact, that it is almost always retained by the stomach; and this is an important circumstance, as that organ is generally in a high degree of irritation. It is not uncommon with some practitioners to add to the parsley, some seeds of the water-melon. But whether any advantage is thus gained, I am prepared neither to assert nor to deny.

It is a curious fact, that in some of the cases of dropsy of which we are speaking, even the mildest of the diaphoretics produce occasionally eminently diuretic effects. For this purpose no article is so well adapted as the preparation which I will now mention.—

Laudanum — gut. 30
Sweet Spts. of nitre ℥ ij
Antimonial wine — gut. 40 a 50

4 From this prescription in 4 or 5 cases, I have derived the most unequivocal advantage. Last winter I was called in consultation with the late Dr. Witter to a case of Dropsy.

After we had employed several other remedies to no purpose, I suggested this mixture; with some surprise the doctor asked me how I had ascertained the prescription to be serviceable. I told him that I had obtained the knowledge of its powers by accident. He then informed me, that 30 or 40 years ago, while engaged in the practice of the Dispensary, he had made use of the same mixture in a case of Dropsy which had resisted all the usual remedies. On visiting his patient next day, he was ~~f~~ surprised to find that a large discharge of water, and a consequent reduction of the intumescence had taken place. — Medicines often have a reverted or inverted action. Thus in Dropsy, when there is a tendency to the kidneys, diaphoretic medicines will often prove diuretic.

Within the last 2 or 3 years a great deal has been said of the powers of a native vegetable over hydropic affections: — the article to which I allude is called Pippsiseua in the common language of the country, and by Botanists ~~the~~ Pyrola Umbellata. We owe the credit of having introduced this article ~~into the~~ into the treatment of Dropsy, to Dr. Lowmerville of the British army. ~~So~~ From the time of his publication, it has gradually crept into the prac-

tice of the English physicians; and, within the last few years, a number communications attesting its efficacy have been made to the various periodical publications. These have come from some of the most celebrated practitioners of London. As yet it has not been much employed in the practice of this city. The mode of giving it is in a strong infusion of the entire plant, or in ~~a~~ the form of an extract which has been prepared from it. A pint of the infusion may be taken in the 24 hours, ~~the dose~~ ~~of~~ or one drachm of the extract dissolved in water. The article is distinguished by great activity & certainty of operation; & possesses this peculiar advantage, that while it stimulates the kidneys to increased efforts, it also imparts tone to the stomach. So eminently, indeed, does it exert this latter power, that it has been applied to the treatment of Intermittent fever, and with success. There are not wanting many cases of confirmed dropsy, cured by this medicine alone.

As I have detailed then, such are the remedies, which, in the present state of our practice, are most appropriate to inflammatory Dropsy. But the disease either originally or by improper treatment, assumes very often a

different condition, and demands different remedies for its cure. The System being sufficiently reduced, we may dispense with venesection, and, when torpor of the intestinal canal exists, may resort to the cathartics of a drastic nature, for the purpose of rousing this into action, and making, through it, an impression on the absorbents. Combinations of calomel with gamboge, colocynth, scammony, or elaterium will answer very well. Notwithstanding what has been alleged to the contrary, there is no doubt that the drastic purges are often advantageous in old & protracted ~~Ca~~ dropsies. To deny this, would be to distrust some of the best medical testimony which our science can afford. It is also in this case of Dropsy, that some diuretics which have not yet been noticed, are eminently serviceable

Of the general powers of Digitalis in this complaint none of you can be ignorant. It is now half a century since this article was introduced by Withering into the treatment of Dropsy. After an extensive acquaintance with the remedy he asserts, that so far as the removal of the water will contribute to cure the patient, so much may be expected from Digitalis. No sooner was ~~his~~

the remedy made public, than attestations of its efficacy poured in from every quarter. The current of experience has constantly flowed in favour of this article. Whatever may have been the fluctuation of sentiment with regard to its utility in other diseases, its reputation in dropsy has remained unimpaired. There is no form of the disease in which I have not prescribed it with advantage. All that we need attend to, is to ascertain that the case is a proper one for the administration of the remedy. Extraordinary as it may appear, it is ~~not~~ on a system exhausted & enfeebled that digitalis acts most kindly, and with most decided advantage. As long as there remains activity of the pulse, and a considerable portion of general strength, the medicine will prove unserviceable & sometimes eminently mischievous in Dropsy. This sentiment is not peculiar to myself. Withering observes, that in persons of tense fibre, and great natural vigour of constitution, the digitalis seldom proves successful. When, on the contrary, the pulse is feeble, the countenance pallid, & the surface cold, it hardly ever ~~fails~~ fails, according to Withering, to be of utility. This fact I wish particularly to impress on

you, because a priori you would be led to a contrary conclusion. This estimation of the properties of digitalis in Dropsy has been confirmed by general experience, and practitioners act accordingly in the administration of the medicine." It would appear that Darwin entered fully into the same sentiment. After several trials of digitalis in the dropsical affections, he came to the decision, that on the whole it is best suited to those cases which have been brought on by intemperance & debauchery, and, of course, in which the system is broken down & exhausted. There has existed no little difference about the method of administering it. By Withering it was thought most efficacious in Dropsy, when given in infusion. But if its narcotick effect ~~are~~ is demanded, as in Pulmonary Consumption, then, according to the same writer, the best form is that of tincture or powder. I believe, however, that the distinction is altogether useless; and I have had no reason to suppose that the form should be different for different diseases. The best for all, is that of powder. ——

As a narcotick allied to Digitalis in its ~~las~~ leading properties, I shall next mention the Tobacco. It was not long ago introduced into the treatment of dropsy by Dr. Fowler a physician of England, of no little

reputation. As other new remedies, it was, for a season very popular. What is the precise degree of value which should be attached to it, I am not prepared to assert. I have rarely prescribed it in dropsy. But could we credit half what is said of its efficacy, there would be little need to go further in search of a remedy for this complaint. The mode of exhibiting it is as follows. Put 1 oz. of the leaves in a pint of water, & make a strong infusion, of which give 15 or 30 drops 2 or 3 times in the 24 hours, much in the same way with digitalis.

I turn from this article of equivocal utility, to another, which is among the most certain, most efficacious, and in every respect most important in the whole class of Diuretics; I allude to the Squill. There is no species of dropsy, in which it will not operate with signal & unequivocal advantage. But we must not forget that it is a stimulant, and hence must be prescribed with discrimination & judgment. My mode of giving it is in combination with calomel, in the proportion of 2 grains of the former to one of the latter. By Cullen this combination is altogether disapproved. He alleges, that by uniting calomel with squill, the medicine is more apt to run off by the bowels, and its diuretic

property is thus diminished. But, under the expectation of determining it more pointedly to the ~~kidneys~~ urinary organs, he was fond of conjoining it with the neutral salts, or sub-carbonate of Potash. But as his hypothesis is wholly gratuitous, it is deserving of no kind of attention. That the powers of squill in Dropsy are increased by uniting it with calomel, is proved by the concurrent testimony of a vast number of physicians both of Europe & this country. If calomel produce the effects mentioned by Cullen, it should be combined with small portions of opium. At one period the question was much agitated, whether the squill should be so regulated, as to produce any impression on the alimentary canal by vomiting or purging. By Dr. Holme, ~~professor~~ the affirmative side of the question was adopted in this contest. In dropsy he gave the squill and nitre, of each 10 grs. daily so as to excite vomiting; and at night sustained the strength by opium & other stimulants. Cullen, the cotemporary & rival of Holme, between whom a great jealousy & dislike existed, maintained the other side in the dispute. By him it was contended, that exactly ~~as the sq~~ in proportion as the squill operates on the alimentary

canal, so is its diuretic power diminished. But here, as elsewhere, the truth lies between the extremes. The point in dispute, and which was, indeed, warmly disputed, was not whether emetics or ~~emetics~~ purgatives were ~~as~~ useful in Dropsy, but whether the powers of Squill were increased by pushing it to this extent. Determining from my own observation, I should say that the just medium in the employment of this medicine, is a moderate or slight degree of nausea. Nevertheless even this slight effect is not to be considered as necessarily connected with the beneficial operation of the Squill. I have again & again employed the medicine, and produced copious discharges of urine, when I was not sensible, that in the slightest degree, it affected the stomach & bowels.—

/ 2. / Sometimes Dropsy is complicated with a depraved & cachectic condition of the system, where diuretics of an active & stimulant kind are called into requisition. Cantharides are often prescribed under such circumstances. As regards this article, there is a peculiarity in its properties not unworthy of recollection. As you all know, it is prescribed to meet the most opposite indications. Every practitioner has employed it, as well to restrain incontinence of urine

as to promote ~~the~~ an increased discharge of that fluid. To reconcile ~~this~~ such seemingly contradictory practice is not altogether easy. As an attempt at an explanation I shall only remark, that cantharides evinces dissimilar properties under opposite conditions of the system, and in different doses. Generally you will find, when the medicine is exhibited in a state of very high excitement, or at any time in very minute quantities, that it will most commonly be productive of strangury, or other irritation of the urinary organs. But under opposite circumstances, ~~as when~~ of the system ~~is~~ (when it is much reduced); or in large doses I have uniformly found the medicine productive of invigorating effects on the urinary organs. Thus in the weak form of dropsy, the tincture of cantharides given in the dose of a drachm or more 3 or 4 times in the course of 24 hrs. ~~produces a copious discharge of urine~~. within my experience has produced as copious a discharge of urine as I ever witnessed from other remedies; and never, in a single case, have I remarked any irritation of the kidneys or bladder. This medicine therefore I hold to be very important in atonic Dropsy, where there is great debility & torpor of the system.

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Its efficacy does not rest on my own observation alone. But, on the contrary, it is corroborated by the most respectable authority. It must not, however, be concealed from you that Cullen, and other authors have maintained that cantharides have not in the slightest degree, the power of promoting the urinary discharge. They contend that the medicine acts alone on the neck of the bladder, and produces, when continued, confirmed strangury. But most undoubtedly it does promote the urinary discharge, and these writers must have been led into a mistake, by giving it in improper doses, and under circumstances unfit for its application.

Of the oil or spirits of Turpentine, though at one time it was much recommended in atonic dropsy, I am not prepared to say a great deal. I have occasionally prescribed it, but never with much success. Being, however, a powerful stimulant, directed particularly to the kidneys, it may sometimes prove serviceable in this case. It should be prescribed in small doses, not more than 10, 15, or 20 drops 3 or 4 times a day. By large doses, we shall always produce purging, & frustrate the diuretic effect.

I am next to call your attention to a remedy particularly adapted to the species of dropsy which we are now discussing. It is the Seneca Snake root to which I allude. This medicine has been employed in all shapes of dropsical effusion, and, if the most respectable writers are deserving of credit, with considerable advantage. But it has never gained general confidence, nor been very widely employed. It is exceedingly well spoken of by Sir Francis Millman, & by the late Dr. Percival; and Cullen, though he had not ~~an ocla~~ a large experience with it, cites many authors in its favour. Of late it has been gaining ground in the practice of Europe and the United States. I suspect that its ~~clan~~ ~~repu~~ character has been not a little injured by a too promiscuous employment of it. Certain it is, that no one has yet pointed out what are the precise circumstances or form of dropsy in which it is applicable; ~~nor~~ or layed down principles for its ~~a~~ just administration. But lip from what I have myself observed ~~myself~~ of its properties, than from my theoretical views with regard to it, I have been led to conclude, that the Polygala is most effectual in those cases of universal dropsy, ~~de~~ ~~pen~~ which are dependent on a very feeble absorption,

and are associated with a cachectic or vitiated condition of the body. At last, it is under such circumstances of the disease, that my own personal experience leads me to think most highly of the remedy; and I am confirmed in my belief by the consideration that the seneca is a widely pervading stimulus, reaching every part of the body, and operating powerfully on all the secretory & excretory organs. Diffusing its impressions over the whole system, it ~~often~~ extends its action to the lymphatics, and excites these vessels into new & invigorated efforts. But its efficacy is in some cases much improved by uniting with it, small doses of calomel. This is done by previously reducing the seneca into powder, and afterward converting it into pills with the mercurial preparation. The dose is from 10 to 20 grains of the powdered seneca, combined with from ½ to 1 grain of calomel. —

As a Diuretic highly active and stimulating, the Colchicum Autumnale, or Meadow Saffron is not ~~without~~ reputation. It was originally introduced into the management of dropsy by Baron Stork of Vienna, so distinguished for his attachment to powerful & poisonous remedies. By him the medicine is re=

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commended in the weak & atonic form of Dropsy, in which he informs us that it produces results highly beneficial. Of the powers of the Colchicum in Dropsy, I cannot say much; and the remedy possesses very little reputation among the practitioners of Great Britain and this country. But on the Continent of Europe, and particularly in Germany & France, it continues to be employed in dropsical effusions, and in some other complaints, especially those of the chest. There are two modes in which the colchicum is used. As an oxymel or syrup it was employed by Baron Stoerk, who said that in this way its harshness and violence were diminished. Of this preparation the dose is 1 drachm, to be repeated at proper intervals in the course of 24 hours. Within the last few years much attention has been directed to this article, in consequence of its being supposed to constitute the basis of the celebrated Eau Medicinale. The preparation of the medicine most employed is a saturated ~~tea~~ vinous tincture, in the dose of a tea-spoon-full several times a day.

Many of the articles denominated Aliacia have been a good-deal employed in atonic Dropsy.

The common garlic is infinitely the most powerful of this class of remedies. From the circumstance of its reaching the urine in an unchanged state, it might be supposed a priori, that it would operate strongly on the urinary organs. It is sufficiently established by experience, that garlic is a highly stimulating diuretic, and in this form of Dropsy it has been well spoken of by Sydenham, and Burgess, and is still a favourite remedy in the Hospitals of London. I have occasionally used it, and with advantage. It is best adapted to those cases which have arisen from drunkenness, and are accompanied by debility of the stomach.

In my enumeration of the remedies for Dropsy, I have now reached the conclusion of the Diuretic medicines. These I have described with considerable minuteness, because, as you must have perceived, there is a wide difference in their properties, on account of which they are not applicable to the same cases, and can be prescribed with utility, only when under the direction of a sound & discriminating judgment.

Diaphoretics are another class of medicines,

which have been not a little employed in the treatment of ~~Dropsy~~ the disease which we are now considering. As an increased discharge from the surface in Dropsy, has the effect of decreasing that from the kidneys, we should at first be led to suppose that ~~the~~ any medicines calculated to produce the former, would be altogether inadmissible. Nevertheless, diaphoretics are sometimes of great service in Dropsical effusions. At one time it was the fashionable practice to treat Dropsy wholly with these medicines, and recently it has again received on the continent of Europe. I have used it myself with sufficient success to authorize me in recommending it to your attention. The cases to which I found it best adapted, were such as originated in intermittent fever, ~~and~~ were kept up by visceral obstructions, and were associated with great debility and emaciation. In these cases there is commonly extreme atony, a small, tense, chorded pulse, cold extremities, pallid countenance, ~~&~~ a dry, shriveled skin, and many other circumstances denoting an impeded ~~&~~ depressed circulation ~~on~~ the surface of the body. Diaphoretics, by their centrifugal operation, relieve the viscera from oppression, determine the blood to the extreme vessels, & restore that equipoise

to the circulation, which constitutes the first step in the cure of the disease, and the restoration of healthy action. Nor is this all. It appears that in certain cases of dropsy, the accumulation of water is owing to an inverted action of the exhalent vessels; that instead of the occurrence of perspiration, or the escape of halitus by the surface of the body, the vessels invert their action, and exhalation takes place into the cellular tissue, or, what is more commonly happens, into the great cavities of the body. I have seen more than one case of dropsy which, I am entirely persuaded, happened in this way; viz. - by a determination of the perspiration from the surface to one of the great cavities, by means of one of those inverted actions which are so frequently seen in the Animal economy, in a state of disease. Under such circumstances, it would appear that by exciting exhalation from the surface, by means of diaphoretics, we should do what promises best to remove the complaint. Acting on this principle, I have frequently used Diaphoretic remedies, and sometimes with signal & unequivocal utility. The external means of exciting perspiration often answer exceedingly well in this case. By the vapour bath alone, I

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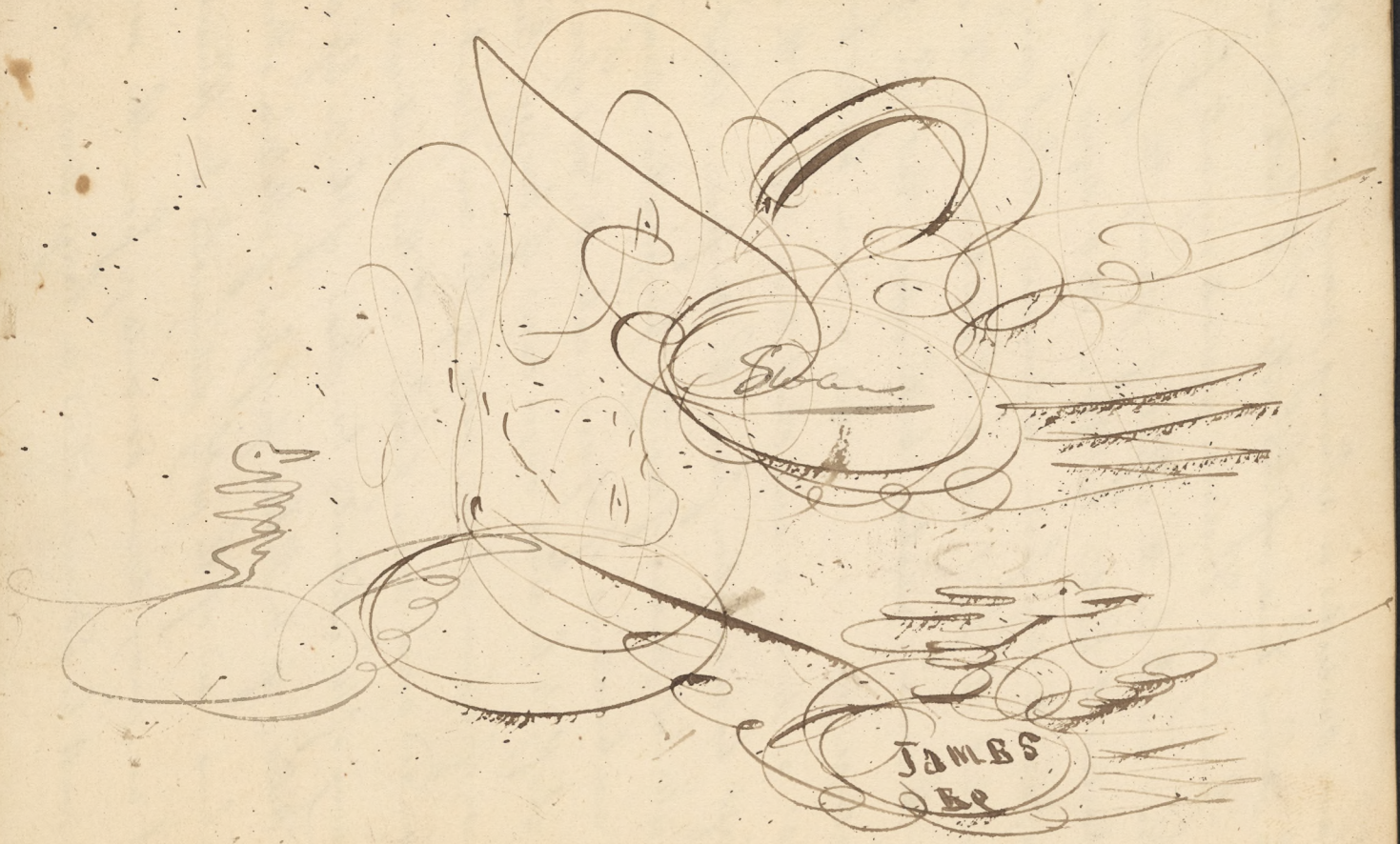
have succeeded in relieving many cases of dropsy in the Alms house of this city. The bath invented by Dr. Fenning of Virginia answers very well for this purpose. What would be the effect of placing the patient in an apartment heated to 120 or 180 degrees, I am not prepared to say from experience. But you all recollect the fact which I mentioned in the early part of the course; ~~relative to the exper~~ - that Sir George Hordyce & ——— entered a room heated to about 140° & during a very short time, lost 15 lb. of their weight by exhalation from the surface. But, though the external means of exciting perspiration may answer, yet combinations of opium, calomel, and ipecacuana are chiefly to be relied on in cases of dropsy. Even by the use of opium alone, cures of this complaint have been again, and again accomplished. To this point we have the testimony of the celebrated Dr. Mead, of the no less celebrated Dr. Willis, of Dr. Home professor of Materia Medica at Edinburg, and of the justly distinguished Dr. Heberden. But that we may derive advantage from the use of opium, it must be administered in large doses. My own ex-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perience does not entitle me to say any thing of opium given by itself; though I have prescribed the Dover's Powder, with great utility. — Within the last few years, much has been said of the Eupatorium Perfoliatum in the management of Dropsy. Whether it is advantageous I cannot say from personal knowledge; though I have collected sufficient testimony of its having done good in other hands. Physicians in this, and the neighbouring states, have been in the habit of using it, but with little discrimination. ~~Dr~~ My friend Dr. Hosack informed me, that he had known it used in the hospitals of New York; but in what particular cases I was unable to ascertain. I presume that the medicine is most serviceable, in those cases which are generated in miasmatic countries. In such situations the disease assumes more or less of the intermittent type, and may be successfully treated by combinations of tonics & diaphoretic medicines. The Eupatorium possesses in a high degree ~~the~~ tonic & diaphoretic properties, & hence I presume is well suited to these cases. —

As yet I have said nothing of the use of mercury in the cure of Dropsy. That this is an important remedy in some of these cases, there can be no

doubt whatever. It is better suited, however, to ascites than to anasarca. When the latter form of dropsy originated or is kept up by visceral obstruction, no practitioner would hesitate to resort to mercury. But there is another case of anasarca, in which this medicine may be more advantageously employed; I mean, where there is reason to suspect that the accumulations of water were owing, not to increased effusion, but to imperfect absorption. Of all the articles of the Materia Medica, no one is so pointedly directed to the system of Lymphatic vessels as mercury. Whenever, therefore, you suppose that the action of ~~a~~ the absorbents is impeded, and that the collection of water is produced by this cause, you may resort to mercury, ~~&~~ with advantage. But in the common forms of Dropsy, if you rely on a salivation for the cure, you must enter into practice prepared for disappointment.

I have now enumerated most of the general remedies which are employed in anasarcous swellings. Besides these, it sometimes becomes advantageous to resort to local measures. When the extremities are very painful, and much distended with water, much

relief may sometimes be gained by evacuating it. This is to be effected by small punctures with the lancet. You must be careful, however, that these do not extend too deep; as Erysipelatous inflammation and Gangrene might otherwise result. It is worthy of observation, that we are often called to encounter Erysipelatous inflam: & gangrene in cellular dropsy, especially in the extremities. Either from the extreme distention occasioned by the effused fluid, or from pressure on the part by external force, or from the torpid condition of the capillary vessels, the vitality of the integuments is occasionally so much impaired, as to occasion gangrene & mortification. I have seen the most frightful Sphacelus occurring in Dropsical Subjects. The treatment of these cases is very embarrassing to the practitioner. Of blisters, in other cases so serviceable, we cannot here make any use. Often, indeed, they are the cause of the very disease of the very mischief which we wish to relieve. Every practitioner has met with cases of gangrene resulting from the Vesicating applications alone. What I have found to be most beneficial in hindering the progress of the mortification, is ~~the~~

to compress the extremity above & below the affected part, with a flannel roller very tightly applied. The principle on which it acts is perfectly intelligable to all of you. There is in the extremities of dropsical patients, a want of sufficient action, and animal temperature. By the flannel roller we impart warmth, and vigour to the limb, which enable it to resist ~~to~~ the progress of gangrene. As far as I know, this is a discovery of my own, and its success has been sufficiently attested in the numerous instances of ~~dropsy~~ ~~dropsies~~ dropsical patients ~~previously~~ whom I attended in the Alms house, that vast receptacle of vice, poverty, and wretchedness. — It has been remarked that blisters occasionally produce gangrene & mortification. But this is not always the case. On the contrary, if judiciously applied, under proper circumstances of the case, they sometimes prove of great advantage. The period at which it is proper to use blisters, is when there is neither great action, nor great debility. If you apply them in the commencement, you will find their production of Erysipelatous inflammation, succeeded by gangrene & mortification. The same is the case in the

advanced stage of the complaint. But if blisters be applied in the time intervening between these two extremes, they will very much assist in evacuating the water, and thus relieving the distention of the extremities. As palliatives in this complaint, some other measures may be adopted in the treatment. Thus, much utility is derived from rubbing the limb with the dry hand, or with the flesh-brush, or, if it be preferred, with olive oil. Advantage also in some cases is gained by applying a roller, commencing at the foot & extending up to the ~~to~~ hip. By this injury is imparted to the lymphatics, ~~and thus~~ which are stimulated to action; and thus the effused fluid is taken up & removed.

Ascites

L. By this term you are to understand a collection of water in the cavity of the abdomen. Most commonly the fluid is contained within the sac of the Peritoneum; though occasionally it is met with, in the intervening space between this membrane, and the abdominal muscles. Ascites is often preceded by a loss of appetite, sluggishness, inactivity, dryness of the skin, some oppression at the chest, cough, diminution of the urinary discharge, and ~~ob~~ constipation of the bowels. Not long after the appearance of these symptoms, a protuberance shows itself in the Epigastric region, which gradually extends and increases, till the whole abdomen becomes uniformly swollen, and tense. Of the fluctuation of the water in this case, you may make yourself sensible, by placing your left hand on one side of the abdomen, and striking the other side with your right hand. It may also, on some occasions, be distinctly heard. These criteria of ascites ought to be remembered, as they serve to distinguish it from Tympanites, and, in the female sex, from pregnancy. These different conditions ~~and sometimes~~ have often been confounded, and sometimes the want of

discrimination, has proved fatal to the patient. Within the last 3 or 4 years a case has come under my notice, in which a pregnant female was tapped for dropsy, ~~by~~ though two physicians were present in consultation. —

As respects the causes of ascites I have little to say. They are essentially the same with those of anasarca, and these have been sufficiently described. Ascites, however, more frequently results from obstruction or other morbid states of the viscera: it is also produced in a way which has not yet been particularly noticed. It is a common remark of writers on this form of Dropsy, that the patient, in the commencement of the attack, is almost as much distended by flatulence, as by accumulations of water. I have ~~for~~ this, and other reasons thought, that in some cases of ascites, the blood ~~vessels~~ vessels instead of ~~secreting~~ water, ~~are~~ secrete some gas, which, by condensation or some other process with which we are not acquainted, is ~~conv~~ converted into a fluid condition. That the blood-vessels are capable of exercising, or do exercise such an office, has been ~~fully~~ shown satisfactorily by the late Jno. Hunter, and rendered highly probable ~~from a var~~ by a

variety of ~~considerations~~ circumstances. As respects general dropsy, I have seen it follow almost immediately an attack of ~~chole colick~~ flatulent colick. Last winter I had under my care the child of a friend, whose case illustrates this hypothesis in a striking and unequivocal manner. The boy, who was about 10 or 12 years old, returned home from skating, when the weather was exceedingly cold, and was attacked with flatulent colick. I was called in, and relieved him by the usual remedies. Next morning I was again sent for, and when I arrived was surprised to find him in a state of universal dropsy. He was cured ultimately by the use of diuretic medicines, particularly the combination of antimonial wine, nitre, and laudanum, which I mention on a former occasion. In this case I was led to believe that a gas was generated during the attack of colick, which by some process not understood was converted into water.

But whatever may be the cause of ascites, it requires the same remedies with that form of dropsy of which I have already treated; and I shall, therefore, content myself with throwing back your memory to what was said on that occasion. As, however,

Ascites more frequently arises from a diseased condition of the liver, and other viscera, it, on this account, demands more generally the use of mercury for its cure. Combinations of calomel with digitalis or squill are preferred in this case. You should be aware, that much of the efficacy of ~~mercury~~ the mercurial treatment depends on the gradual manner in which the system is brought under its influence. If salivation be suddenly induced, by throwing large quantities of mercury into the system, no satisfactory impression will be made on the case; but, on the contrary, all the symptoms will be aggravated, and the disease will be rendered infinitely more difficult of cure. When the patient is exceedingly susceptible to the operation of mercury, it will be best, instead of administering it internally, to apply it in the shape of friction. In some of these cases, in consequence of the extreme exhaustion, mercury is altogether excluded. Under such circumstances, we may apply to the nitric acid with decided advantage. It may, indeed, be laid down as a general rule, which will apply in all cases of disease, that, where mercury is obviously indicated, but from the debility of the patient we are

hindered from employing it, the nitric acid may with propriety be ~~resorted~~ recurred to.

In dismissing the treatment of ascites, I shall make one or two remarks on the direct mode of evacuating the water. As you all know, this is done by an operation called tapping, for the correct mode of performing which, I refer you to the Professor of Surgery. To discharge the water in this way, becomes necessary, when the distention of the abdomen is so great as to occasion pain, to disturb respiration, & to render the case altogether aggravated & uncomfortable. When these symptoms occur, you should resort to the operation without delay, having, however, premised unsuccessfully the ordinary remedies for removing the water. Early tapping in ascites is much insisted on by Dr. Fothergill, & other writers; and its utility is now generally recognized. Confessedly, after the patient has become very much debilitated, it will not only do no good, but will prove eminently mischievous, and in some cases will hasten death, by removing the stimulus of distention, which, under such circumstances, is the chief prop of existence. But in this case, before tapping, try

the effect of a large blister to the abdomen. It is perfectly true, that this will rarely be found to answer as a substitute for the operation; but sometimes I have seen it induce an evacuation of the water. Within the ~~last~~ last few weeks, I have been consulted in the case of a Lady, who was affected with the dropsy; and whom two other physicians were attending. There existed some doubt whether the distention was owing to ascites, or to pregnancy. At length, however, it was decided that the complaint was dropsy in the abdomen, and a blister was applied over the parietes. Next morning, on paying our visit, we found that the whole of the tumefaction had disappeared; and we were informed that gallons of urine had been discharged. Dr. Caldwell was present, and can fully confirm what I have stated.

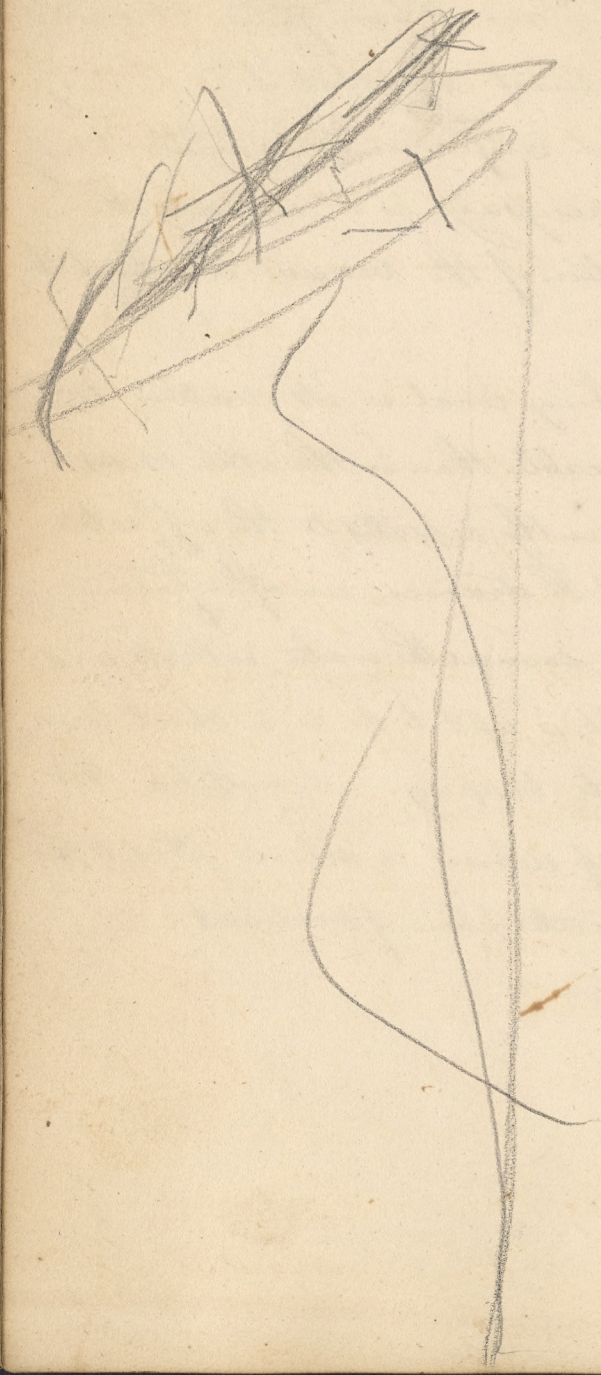
As a modification of Ascites, it will now be proper to speak of Encysted dropsy. By this term we mean, a collection of water in small sacs, attached to some one of the viscera, and supposed in common to originate from hydatids. The accumulation of fluid between the peritoneum and abdominal muscles, has been included under the head of Encysted Dropsy, by the nosological writers. But, as the two forms

of dropsy arise from different causes, and are not of the same nature, I think they are improperly ranked under one head. The Encysted dropsy requires pretty much the same treatment with ascites; yet it is always advisable to discriminate between them. To arrive at a proper conclusion, the following circumstances should be attended to. In general ascites is preceded by a peculiar diathesis, or hydropic condition of the system; and the swelling of the abdomen is gradual, and ~~equally distended~~ the distention equal over the whole belly. There is also more or less oedema of the extremities, and other parts, particularly of the face. But in encysted dropsy, there are none of the symptoms just mentioned as denoting ascites; and, besides, we have afforded us some peculiar indications. The swelling is local, and generally inclines to one side or part of the belly. There is little or no thirst, or febrile affection. The urine is neither altered in quality, nor diminished in quantity; and, if the disease occurs in women, the menses continues uninterrupted, a circumstance which very rarely happens in ascites.

In relation to the management of these cases the same general course is to be pursued, as in the

form of Dropsy last mentioned. The mercurial practice should especially be employed, and I have found it decidedly beneficial; I might almost say that it is the only practice worthy of much confidence in Encysted Dropsy. Mercury is here the more necessary, as it corrects the scirrus or diseased condition of the viscera to which the cyst may be attached.

The disease being local in its nature, topical remedies are more serviceable than in the other cases.— Among these, blisters frequently repeated to the affected part, in the early stage of the disorder, are often found highly advantageous. As soon as the water collects and distinctly points, which it is apt to do in a short time, the recourse should be had to tapping. Nevertheless, this is an unmanageable case of disease, & seldom yields to the most skilful & best concerted plan of treatment.—



Hydrothorax.

I proceed next to give some account of Hydrothorax or Hydrops Pectoris. As this is by far the most formidable of all the forms of Dropsy, and most apt to be confounded with other diseases, the treatment of which is widely different, I will enter with some minuteness into an historical detail of the symptoms. In Hydrothorax a collection of water takes place in the cavity of the Pleura. It is often found in both sacs, but more frequently only in one. Sometimes, though more rarely, the fluid is effused into the Pericardium alone. In some cases it is collected in the cellular texture of the lungs, and is then called by some writers anasarca Pulmonum.

Hydrothorax comes on with oppression and tightness about the orbiculus cordis. There is great difficulty of breathing, and the patient cannot rest in bed, unless his head, and the upper part of his trunk be elevated. He often starts from his sleep, and complains of anxiety about the precordia, Dyspnoea, palpitation of the heart; and these are relieved by an erect posture. The urine is high coloured, and scanty; and generally there

is anasarca of the lower extremities. In the progress of the disease the pulse becomes quick and irregular and active, though this is not uniformly the case. - There is paleness of the countenance, and a purple hue of the lips & cheeks. ~~The~~ A cough attends the disease, at first dry, but in the more advanced stages, accompanied with expectoration of mucus, or tough phlegm. The thirst is troublesome, and more or less of hyperia is present. The arms are commonly numb; and a practitioner of this country has informed me through one of his pupils, that he has always remarked a ~~stricture at one~~ sensation of obstructure at one of the coasts. Very generally there is great difficulty of deglutition, and when this is accomplished, it is ~~attended with~~ more or less of pain. If one side is more affected than the other, the patient will always be found to lie on that ~~side~~ side; and uniformly in this case, according to my observation, there is more or less paralysis, or sensation of numbness in the arm of the side affected. When there is a large accumulation of water in one side only, that appears ~~the large~~ to the eyes ~~of the practitioner~~ larger than the other; and some fluctuation may be perceived either by the patient himself, or by the practitioner. When the pericardium only is affected,

the feeling of oppression is confined more closely to the region of the heart, and this organ is more disturbed in its functions than in ordinary hydrothorax. The diseases with which Dropsy of the chest may be confounded are Emphysema, Angina Pectoris, Asthma, organic affections of the heart and Aorta, and certain complaints of the stomach.— But by a close attention to the peculiarities of these cases, they may generally be distinguished. Two circumstances may be stated as affording certain indications of the existence of water in the chest. It is said by Corvisart, who wrote on the diseases of the heart, that by striking the sternum, when the patient is in an erect position, you can always hear the fluctuation of the water;— and Bichat, the French anatomist tells us, that pressure of the abdomen uniformly aggravates all the symptoms in Hydrothorax, & especially the sense of suffocation.—

All the causes of the other hydropic affections, may also give rise to this. But it is most usually met with as the consequence of habitual drunkenness; ~~in old persons~~ It also occurs in old persons, and is apt to succeed ill cured Pulmonary inflammation; or it may

happen as a part of universal dropsy. —

In the treatment of hydrothorax we are to be guided by those general principles, and, with some exceptions, are to employ the same remedies, which were applied to the cure of the other forms of Dropsy. Like the others, this case is combined either with a toxic, or atonic condition of the system; but, from what I have seen of the disease, I should say that almost universally, in the early stage of the disease, there is a highly inflammatory action. This is clearly shown by the condition of the pulse, by pain in the side, and a variety of other indications. As such is the case, we should appeal to the lancet, as to the best means of reducing action. It is the universal practice, in this city, to commence the treatment of hydrothorax, under common circumstances, with venesection. Nor should it by any means be limited to a single operation; on the contrary, it will be proper to repeat the bleeding till the inflammatory action is completely subdued. But in this complaint it will not always answer to pursue the practice which seems to be indicated by the pulse. It is a fact originally remarked by Dr. Th———, fully confirmed by subsequent experience, that even to the last, however frequently venesection may be

repeated, the pulse continues active, or appears to indicate the loss of more blood. Therefore in judging when it is proper to use the lancet, we must consult all the circumstances which serve as guides in such cases. As auxiliary to venesection, great advantage in this case may be derived from the application of cups or leeches to ~~the~~ one or both sides. By ~~the~~ several of the most eminent practitioners of this city, hydrothorax in the early stage is treated by topical bleeding. — By this plan the disease is sometimes entirely arrested. After sufficient evacuation has been effected by general or local measures, you may then resort with advantage to blisters. But that these may operate effectually, they should be large enough to cover the whole of the chest, and as fast as one heals, another should be applied. By keeping up ~~this~~ a constant discharge, I have seen this remedy again & again prove of signal advantage in causing an absorption of the accumulated water. — The disease not yielding to the plan detailed, it will then be proper to resort to ~~Drastic~~ Diuretics. Of these by far the best, is a combination of ~~squill~~ squill

and calomel. By this an effect is produced, which could not be obtained ~~by~~ from either of the articles given alone. When the mouth becomes affected, under the use of mercury in Hydrothorax, the progress of the disease is always arrested. As soon as a salivation is induced, especially if the Squill is also employed, you will find the dyspnoea, oppression at the breast, and other bad symptoms, generally much abated & relieved. — Much, of late years has been said of the powers of Digitalis in this case; but after having tried it in many instances, my confidence in it is greatly diminished; and I am induced to believe that the practitioners of this city ~~are~~ have ~~I~~ in general a similar opinion with myself. Certain I am, that in Hydrothorax it does less good than in other cases of Dropsy. Indeed, my disappointment with it in this complaint has been so great, that I have almost entirely ceased to resort to it, decidedly preferring the combination of Squill & calomel. Of those who differ from me, ~~the most conspicuous~~ is Dr. Hamilton, who ~~was a~~ wrote a paper on Digitalis, expresses his opinion with the greatest confidence. "~~That~~ Collections of water" he

* This is not exactly the language of Hamilton; but is the sense as nearly as I could collect it. —

says, "in the cavity of the chest are accompanied with great danger, by impeding the functions necessary to life; and if not removed will sooner or later prove fatal. But that this may be obtained, viz. the removal of the water, experience, by which I am always guided, does not allow me to doubt for a moment. ~~Indeed, I have employed~~ For in no one case have I employed ~~the remed~~ digitalis without effecting a relief of the symptoms. Indeed, the powers of this article on the pathologic are infinitely beyond what we could expect from any remedy, & may be said to amount almost to certainty."* As regards this ~~extravagant~~ account I have only to say, that it would be happy for the human race, were one half of it correct; and that it is surprising to me, how a writer so respectable as Hamilton, should be so perverted by enthusiasm as to make such an extravagant assertion. —

The late Dr. Ferriar has conducted a series of experiments with the views of ascertaining the most active diuretics. As the result of numerous & diversified trials of the different

articles of the Materia Medica, he was led to the conclusion, that of all the means of evacuating water in dropsy, the employment of the following composition was the most certain and efficacious. —

Take of the extract of Elaterium — grn. i
— — Sweet Spirits of Nitre — ℥ ij
— — Tincture of Squill } each ℥ ss.
— — Oxymel of Colchicum }
— — Syrup of Buckthorn — ℥ i.

These are to be mixed together, and one drachm with a little water, to be taken 3 or 4 times in the 24 hours. This preparation he considers as efficacious in all dropsies as an evacuant of the water, though particularly so in accumulations in the chest. As yet I have never experimented with it; but such is my confidence in Dr. Ferrier, who is among the most honourable & enlightened of the ~~Dr~~ practitioners of Medicine, that I have no hesitation in presenting it strongly on your recollection. Many cases are recorded by him of its great efficacy in removing the watery effusion in the chest, which either came under his own observation, or were supplied by his Medical correspondents. —

It would seem reasonable to suppose, a priori, that emetics from their effect on the chest, would be beneficial in hydrothorax; and they have been recommended by several practitioners. But except merely to relieve the lungs from accumulations of phlegm, they are not productive of advantage in this disease. They seem not to promote absorption, as might be expected, nor to make any other salutary impression on the disease. On the contrary they sometimes aggravate the symptoms, and advance perdiciously the difficulty of cure. — —

Not even so much can be expected from the use of purges in Dropsy of the chest. It is a curious fact, but one fully established by experience, that ~~every~~ attempts to excite evacuations from the bowels, in complaint of the ~~lungs~~ lungs, are always injurious, and sometimes so much so as to be wholly inadmissible. Even in Pleurisy or active inflammation of the Pulmonary organs, we do not purge so freely as in the other Phlegmasia. But in all the chronic affections of those parts, especially hydrothorax, the system immediately sinks under the operation of purges; & hence

* Sometimes it has been recommended to discharge the water from the thorax by the operation of tapping. It has never, as far as I know, been employed in this city. It would be difficult to ascertain precisely the situation of the water; & we have heard of no advantage in those instances in which the operation ~~has~~ was performed abroad.

(Notes of last year.)

we are so exceedingly careful in restraining Diarrhœa when it occurs in these complaints. — Instead of promoting the absorption of the water, and the removal of the accumulations by active purging, we uniformly augment the Dyspnœa. Cathartics, therefore, should never be employed, ~~except~~ in Hydrothorax, except to keep the bowels in a soluble condition.*

In dismissing the treatment of this disease, let me again press on you the importance of considering it, in the early stage, as a highly inflammatory affection. By taking this view of the pathology of the case, of course you will be led to the use of depleting remedies, & especially of venesection, and of topical bleeding by cups & leeches. If you then employ the calomel & squill urged to a moderate salivation, I am sure that you will find, as I have found, and a majority of my fellow-practitioners in this place have also found, that, instead of being an incurable disease, as the Europeans are fond of representing it, hydrothorax is as manageable as any other form of Dropsy, & will be struck out, as many others have been struck out by Americans, from the opprobrious catalogue of incurable diseases. —

L.

Before dismissing the subject of Dropsy, it will be proper to say a few words on the regimen which should be observed. As regards diet, it depends much on the particular circumstances of the case. In active or febrile dropsy, a low diet, or even a total abstinence from food for a whole day, or a greater length of time, is of great service towards effecting a cure. But in atonic dropsy, we must pursue a different course. It is here required to support the system by a generous course of living. Much more difference of opinion has prevailed relative to the use of drinks in this case. That the operation of diuretics is promoted by the use of diluent beverages, is generally conceded. It is, indeed, obvious, that if much liquid be taken into the stomach, it must be eliminated by perspiration or urine. Yet there is a condition of the system, in which, ~~according to some~~, by some physicians, a doubt is entertained, whether it would be prudent to endeavour to excite an increased flow of urine by this means. It sometimes happens, that the serum of the blood, not being seperated by the natural emunctories, is effused into the cavities of the body, and into the cellular membrane, thus producing

dropsy, or if that disorder already exist, aggravating all its Symptoms. An apprehension of this nature, with some practitioners, has prevailed to such an extent, as to lead them to inculcate, as much as possible, a total abstinence from drinks; and this, by itself, is alleged to have effected cures. But this statement will not bear a rigid scrutiny. The fact is of rare occurrence; and numerous examples of the total failure of the plan, have induced physicians to abandon it altogether. It is a painful & difficult task, to resist the vehement thirst which attends all dropsies. Drinks frequently seem to promote the urinary discharge; while, on the contrary, an abstinence from them causes an inactivity of the kidneys, and a correspondent accumulation of water. This fact was pointed out by Cullen. By observing the beneficial tendency of the practice, physicians ~~have been~~ generally have been induced to endeavour to increase the action of the Diuretics, by a copious use of the diluent beverages. Common water answers very well; though mixed with the vegetable acids, particularly with cider, it is more agreeable to the patient, and much more effectual. An infusion of Juniper

berries is an admirable beverage in this case. Even by the exhibition of such drinks alone, evacuations of the dropsical accumulations have often been effected. To this point we have the evidence of Sir George Baker, Sir Francis Millman, and of Cullen himself; not to mention a large number of inferior names. The practice of indulging the patient in the liberal use of drinks, is now so well established by the concurrent testimony of the ablest practitioners, that it would be superfluous in me to attempt to support it by theoretical deductions, or by a reference to additional authorities.

The remedies enumerated are all calculated to evacuate the water in Dropsy. These, in most cases, while they produce the effect alluded to, also do away that state of the system which predisposes to the accumulation of the fluid. But sometimes it happens that the remedies do not have this effect, and we are called upon for the treatment by which the ~~recurrency may be~~ recurrence may be prevented. This constitutes the 2nd. indication. The measures suitable to meet these views are local & general, and adapted to each form of Dropsy. First of Anasarca. When the case is in some degree local, the reproduction may

be prevented ~~or to~~ occasionally by frictions. If these fail, much advantage will result from a ~~flannel~~ tight bandage, ~~com~~ ~~compressing~~ the whole limb. For this purpose a roller may be applied to the extremity, or, what will answer equally well, a laced stocking. It is also strongly recommended by some practitioners, to endeavour to invigorate the extremity, by the topical cold bath. The patient may place his feet & legs in a bucket of cold water, or this may be dashed over them, 2 or 3 times a day. In some cases, this is undoubtedly a useful remedy. —

In ascites also it is recommended to compress the abdomen. This may be done by a laced jacket, or by a flannel roller extending from the hips to the arm pits. The remedy is not without advantage. The application of cold water has also been advised; but is much more equivocal here than in Anasarca. Sometimes it may prove advantageous; but often it would produce more injury than benefit; and is at present not much employed. When these topical ~~remedies~~ applications do not avail, it will be proper to resort to general remedies. Of these by far the most effectual are tonics, ~~one~~ of which

the best are combinations of the Peruvian Bark, and Chalybeate preparations. If you find that tonics do not answer, but that a constant and strong predisposition to the accumulation of water remains, you should endeavour to effect a total change in the system, by means of mercury gradually insinuated into it, so as to operate more as an alterative, than as a salivating medicine. In some of these cases which are too debilitated to bear the influence of mercury, the nitric acid may be prescribed with unequivocal advantage. Nor are we to overlook exercise in this case. The effect of exercise in the prevention of Dropsy, is amply attested. Sometimes it not only prevents, but also effects a complete cure. It was the custom of the late Dr. Rush, in his lectures, to relate an anecdote strikingly illustrative of this fact. He was accosted as he once stepped into the street, by a man of interesting address, who told him that he had come to tender his grateful acknowledgments for the cure he had effected. The Dr. very much surprised, replied that he had never seen him before, and that he could not therefore have effected any cure in him. To this the stranger answered,

that he was a native of Virginia; that, having been labouring under a dropsy for a considerable time, and having derived no benefit from the prescriptions of his physicians, he resolved to go to Philadelphia, for the purpose of consulting Dr. Rush, whose great reputation had reached him; that, being in reduced circumstances, he was compelled to perform the journey on foot; and before he arrived ~~at the end of his~~ had been completely cured of his disease; but, as he had been induced to undertake his journey by the credit & fame of ~~Dr Rush.~~ Dr. Rush, he was entitled to the credit of the cure, & to his grateful acknowledgement. —

With this I complete what I had to say on Dropsy, and shall next call your attention to Scrofula or King's evil.

2nd. Scrofula or King's Evil

This is a disease which most generally appears ~~before~~ between the first and fifth year of life. It is sometimes developed at a more advanced period, though very rarely after the season of puberty. It first appears, for the most part, in the form of small, hard, moveable, and somewhat elastic tumours of the lymphatics, especially those of the neck. At 1st. these are not painful, and often continue stationary for a considerable time. At length they become discoloured, and ultimately suppurate. The matter ~~produced~~, which is discharged by several small apertures, in the beginning puts on the appearance of pus, but in a short time is converted into a viscid serum, resembling the coagulum of milk. By degrees the tumour subsides, and the apertures enlarge, forming a superficial ulcer, with ~~flat~~ an irregular circumference, and flat & smooth edges. The ulcer continues in this condition for a great length of time, while new ones form successively in different parts of the body. Some of these heal, while others form, and thus the disease goes on for several years, till, at length, having worn itself out, it gets entirely well, leaving behind it,

however, many indelible scars. But this is the most favourable form. Sometimes different parts of the body are at the same time affected, and a matter is generated of a peculiarly sharp & acrimonious quality, eroding all the contiguous parts over which it flows. The eye sometimes becomes the seat of the complaint, and the part affected. The eye-lids swell and ulcerate, and create an exceedingly obstinate inflammation of the tunica adnata, ending not unfrequently in opacity of the transparent cornea. When the disease attacks the joints, they swell, & become acutely painful on the slightest motion. The tumour gradually increases, the limb wastes away above & below the joint, ~~hectic fever at length supervenes, matter is formed~~ at length pus is formed, and the matter is discharged by several small openings. The ligaments and cartilages are eroded, the bones become carious, hectic fever comes on, which at last destroys the patient; or the disease is removed, and the joint is left anchylosed & immovable. The viscera are often in a morbid state; and the Mesenteric glands, especially, are frequently swelled & ulcerated. The abdomen is tumid & hard, and the lungs are often studded with tubercles. The disease not unfrequently disappears spontaneously, about the age of puberty.

Much as has been written on the causes of Scrofula, we are yet imperfectly informed with regard to them. It is now universally conceded, that the disease is commonly transmitted as an inheritance from parents to their offspring; though the peculiar manner in which this is done, is known to us as little as the way in which other hereditary diseases are conveyed. It is said that Scrofula is more generally derived from the father; and it is clearly ascertained that it will pass over the immediate offspring, & fix upon the 2nd, 3rd, or even some more distant generation. Every writer has remarked that the predisposition to Scrofula, or, as it has been called, the strumous diathesis, is associated with peculiar external or visible marks. The child is distinguished by personal beauty, and acuteness & precocity of mind; by a delicate & pale complexion; ~~by~~ flaxen hair, ~~&~~ rosy cheeks, delicacy of skin, ~~and~~ large blue eyes, and above all a turned twitted lip, divided as it were by a deep fissure or chop in the centre. But, though almost every case, as the disease at present appears, may be traced to an hereditary predisposition, yet there are so many causes, which have so much influence in exciting it, that they are ~~so~~ considered,

by some respectable writers as sufficient to account for the ~~prevalence of~~ production of the complaint, independently of hereditary predisposition. Of these the most powerful is the climate, or a certain state of the weather. Extremes of cold or heat are adverse to the production of Scrofula. It is most commonly to be met with in the intermediate latitudes, and where there is much moisture, as in Great Britain. It hardly ever occurs in the North of Europe, or in the southern portions of that quarter of the world; and in our own country it is seen only along the margin of the sea, or in the Eastern States. As might be supposed, the season of the year has a considerable influence over the disease; and we find it, accordingly, to break out in Spring, and disappear as the Summer advances. Even a temporary exposure to moisture, by sleeping in damp sheets, or wearing wet clothes, occasionally excites an attack of Scrofula. But, besides the causes mentioned, there are several others which act by debilitating the constitution. Not the least powerful of these is a low, meagre diet, confinement to a crowded ill ventilated apartment, the want of comfortable clothing, and inattention to cleanliness, ~~all~~ ~~which~~ the effects of all which are fully illus=

trated in the manufactories of England, where the disease abounds. Scrofula is also developed by the action of certain diseases; or, at least, is seen to follow an attack of them so speedily, that it may well be suspected to arise from this cause. By Jno. Hunter, Syphilis is said to have such an effect, and he has shown, ~~by~~ beyond a possibility of doubt, that the fact is true as regards Small Pox. ¶ It is probable that the whole of the Exanthemata operate in the same way. A surgeon of high authority has suggested that accidents, ~~can~~ by producing a strong impression ~~on~~ ~~awaken~~ ~~awakening~~ the system, awaken the scrofulous predisposition. As respects contagion, formerly so much inculcated, there is not the slightest foundation for supposing that it ever proves the cause of this disease. Experiments ~~have~~ with the matter of Scrofulous ulcers, have most satisfactorily proved, that the complaint cannot be propagated by ~~contagion~~ inoculation.

Every point respecting Scrofula;- its origin, its nature, and treatment are equally unsettled. Conformably to their general view of diseases, the Thomsonian Pathologists placed it in a vitiated ~~cond~~ or acrimonious condition of the circulating fluid.- But this hypothesis is wholly ~~unf~~

unfounded. After a good deal of hesitation, Cullen was ultimately led to conclude that scrofula depended on a peculiar disposition of the lymphatic vessels, and his opinion has since generally prevailed. My conviction, however, is, that the complaint consists in a disordered condition of the whole of the apparatus, subservient to the processes of digestion, assimilation and nutrition. Beginning most commonly in the stomach, and thence extended to the bowels, it is conveyed into the lacteals, and mesenteric glands, and from these propagated to the lymphatics, which ultimately become most affected, and hence I locate the disease in that system. To be convinced of the correctness of this pathology, all that is necessary is to attend to the history of the causes, symptoms, and cure of the complaint. But such of you as wish to see more fully the reasons on which I ground my belief, would do well to consult the work of Carmichael, in which this doctrine is made out, & completely established.

[L.] I proceed with the cure of Scrofula. In this disease there are two stages very distinctly marked, and which demand, in some degree, a different treatment. The first stage, which is called occult, is that in which there is no tumour, ulceration, or other local affection exacting attention, though at the time the system is sufficiently diseased, to create solicitude lest the complaint should advance, and become constitutional. The course to be pursued in this case is one dictated by caution, & consist chiefly in the employment of prevention measures. Consulted in such a case, no practitioner would hesitate, provided it be convenient, to recommend the removal of the patient beyond the sphere of those causes, which are known to exercise so powerful an agency in the production of the complaint. Much may be accomplished by a regulation of the diet & exercise, and by also the degree of temperature, even when a change of climate, or alteration in the place of living cannot be attained. At this early stage, the alimentary canal is not a little affected, as is indicated by nausea, loss of appetite, indigestion, a furred tongue, & lastly constipation of the bowels. Notwithstanding

the debility which often attends the case, it is my practice invariably to premise the use of tonics, by pretty copious & long continued evacuations from the Alimentary Canal. Emetics are sometimes eminently beneficial, when there is much gastric distress. But commonly they may be dispensed with, & purges substituted in their place. These, in order to gain their full effect, should be repeated every 3 or 4 days for several weeks in succession. The evacuations thus procured are always dark & offensive; and exactly as the foul intestinal accumulations are removed, so does the patient seem invigorated, & to be rendered comfortable. This practice having been pursued, the system is well prepared for the reception of tonics, among which the best is the Peruvian Bark, alone; or in combination with the chalybeate preparations. As an auxiliary remedy, the cold bath has been long & very generally recommended, & especially sea-bathing. But, though I believe this to be salutary in most cases, yet on some occasions it may prove eminently mischievous. This may always be inferred, when, instead of exciting a glow on the surface,

it produces a chill & other disagreable sensations. It is right under these circumstances, to exchange the cold for the warm bath; and the efficacy of the latter is greatly increased, by the addition of salt to the water. Daily used for 2 or 3 weeks, the warm bath is productive of great advantage in the cure of Scrofula. It has a beneficial operation in two ways, by imparting tone to the skin, & moreover by preparing the system of the patient for the use of the cold bath. It is a fact, perhaps, not generally known, that, in almost every case when the cold bath disagrees with the patient, no matter what may be the disease, by using the warm bath for a time, we may recur again to the cold, with beneficial effects. We thus awaken what Dr. Jackson calls the susceptibility of the system to impressions; or, in other words, develop the energies of the constitution, so that it will react under the impression of cold water. After what I have said on the history of the causes of this disease, it must be perfectly intelligable to you, that among the prophylactic measures no one has more influence than Diet. By the European writers it is disputed, whether vegetable or ani-

mal food is to be preferred. It is surprising to me, how any intelligent physician could entertain a doubt about the matter. Exactly as in other diseases, one or the other course of living will be proper, according to the general circumstances of the case. As a general rule it is best to select the lightest and most digestible ~~articles~~ matters, as milk & the farinaceous articles; & avoid whatever has a tendency to heat or stimulate the system. It is universally admitted, that very great utility is experienced, in the prevention of this complaint, by steady & uniform exercise. This in any mode is serviceable, though it is infinitely the most so when taken on horseback, and in the country. But though moderate exercise is thus advantageous, it is no less clearly ascertained, that when urged to an immoderate extent, so as to excite fatigue & exhaustion, it is the reverse. Many cases are recorded, where, from over-exertion, the disease has been immediately induced; and, indeed, so powerful is the influence of this cause, that we are told by a late writer, that in the British army, after forced marches, or a hard-fought battle, it was by no means

rare to find a great increase of Scrofulous affections. As it is manifest that a certain state of the weather, ~~com~~ & compounded of cold & moisture is most apt to generate the disease, it follows that the patient should guard against this as much as possible. He should be warmly clothed, particularly with flannel next his skin; and when his condition will admit of it, he should be confined to a room of equable temperature, as ~~is~~ in the case of Pulmonary Consumption. But as the best ~~remedy~~ means of preventing the disease, and averting its serious & fatal consequences, you should advise your patient, when his fortune & circumstances will allow, to remove to some warmer & more genial climate, and there to reside at least till after the period of puberty.

I shall now proceed to the 2d. stage of the complaint, or when it is fully evolved, accompanied with tumours and foul ulcers. Under such circumstances the cure is to be confided to general remedies, and to local applications. Even at this period of the disease, evacuations from the bowels are eminently beneficial. It is

not, however, so much with the view of obviating costiveness, or removing foul accumulations, that we resort to purges at present, as to overcome the inflammatory diathesis which now most generally prevails. Contrary as it may seem to the whole tenor of European authority, undoubtedly purging has been too sparingly employed in most of the Cachectic complaints. The Practitioners have been deterred by the false appearance of extreme weakness which the disease generally wears. That the system in many of these cases is much debilitated, is undeniably true; though it is not less so, that the febrile condition is to be removed ~~by purg~~ only by evacuations; & these, so far from weakening, do, indeed, invigorate the patients. As relates to Scrofula, this property has been fully attested. More than once I have seen white swellings cured by a course of purges, and their benefit is universally acknowledged in the morbus coxarius, which proceeds from a strumous or scrofulous ~~diathesis~~ constitution. Nor is purging less beneficial in dispersing tumours of the lymphatic glands wherever they may be situated. But, to be pro-

ductive of decisive advantage, it is required that this plan should be pursued for several weeks, or even months. Again & again have I seen scrofula treated by purges 3 or 4 times a week for 3 months, and ultimately cured. As a cooperating measure, venesection should be employed, and in the early stage more particularly. This is called for by the state of the pulse, by the pain, swelling & inflam^n. of the tumours, & by a variety of other ~~cases~~ circumstances. But should this treatment fail, which you must be prepared to expect from the peculiar inveteracy of some cases, you should next resort to mercury. But this medicine should be gradually insinuated into the system by minute doses; and you should avoid, as much as possible, a deep mercurial impression. It is a fact well established, that mercury in many cases, and especially in scrofula, produces opposite effects, administered in different ways. During its use, therefore, much attention is required, lest it should unexpectedly operate beyond the proper limit. It is not easy to establish any general rule with regard to the dose in which it will act properly on the system, so

various are the cases in which it is administered, and so different are the effects of the remedy. But I have commonly found, that ½ grain of calomel, 3 times a day, continued for 3 or 4 weeks, answers very well. To increase the alterative powers of the mercury, it is customary with some practitioners to unite with it antimony or sulphur; and, it is said, not without utility. — I am not prepared to say from experience of my own what advantage is derived from the combination. Sometimes I have found it beneficial, and particularly when there was much pain & irritation, to exhibit opium & cicuta with the calomel, ~~pretty~~ pretty liberally. —

(See next vol.)